

Notice of Allowability

Application No.

10/056,275

Examiner

Perez M. Angelica

Applicant(s)

MEDVEDEV ET AL.

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 09/21/2005.
2. ☒ The allowed claim(s) is/are 1-26, 32-38 and 40-47.
3. ☒ The drawings filed on 23 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Regarding claims 1, 14, 32, 33, 34, 35, 40 and 44-47, the previous art teaches of a method, a controller for allocating transmit power to a plurality of transmission channels in a multiple-input multiple-output (MIMO) wireless communication system, a memory coupled to a digital signal processing device (DSPD) capable of interpreting digital information, a computer program, an apparatus and a transmitter unit comprising: defining a set of one or more transmission channels to be allocated transmit power; determining a total transmit power available to allocate to the transmission channels in the set; allocating the total transmit power to the transmission channels in the set based on a particular allocation scheme, identifying transmission channels in a saturation region resulting from the allocated transmit power; reallocating each transmission channel in the saturation region with a revised amount of transmit power; determining a total excess transmit power for all transmission channels reallocated with revised amounts of transmit power. Also, the previous art teaches of one or more iterations.

The previous art fails to teach of one or more iterations, where the set of transmission channels for a first iteration includes the **plurality of transmission channels** and for each subsequent iteration includes **transmission channels not in the saturation region**, and where the total transmit power available for each subsequent iteration includes the **total excess transmit power determined in a current iteration**.

Regarding claims 16 and 38, the previous art of record teaches of a method for allocating transmit power to a plurality of transmission channels in a wireless communication system, comprising: identifying a first set of transmission channels to be allocated transmit power; determining a total transmit power available to allocate to the transmission channels in the first set; based on a particular allocation scheme; identifying a second set of one or more transmission channels allocated excessive transmit power for preferred operating points;

The previous art fails to teach of allocating each transmission channel in the **second set with a revised amount of allocating the total transmit power** to the transmission channels in the first set transmit power to achieve the preferred operating point; determining a **total excess power for all transmission channels in the second set**; identifying a **third set** of one or more transmission channels **capable of supporting higher preferred operating points**; and **reallocating the total excess power to the one or more transmission channels in the third set.**

Claims 2-13, 15, 17-26, 36-37, 41-43, 45-46 are dependent upon claims 1, 14, 16, 32, 33, 34, 35, 38, 40, 44 and 47; therefore, the examiner gives the same reasons for allowance as discussed above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 7:00 a.m. - 3:30 p.m., Monday - Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

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Angelica Perez
(Examiner)


NAY MAUNG
SUPERVISORY PATENT EXAMINER

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September 27, 2005